

CLAIMS

1. A method for transferring information over a data connection according to a protocol stack where certain first protocol layers and certain second protocol layers exist, comprising the steps of

- 5
- creating a protocol identifier,
 - determining a value for said protocol identifier in accordance with the first protocol layers in said protocol stack and
 - delivering said protocol identifier to the second protocol layers in said protocol stack.

2. The method of claim 1, comprising the steps of

- 15
- establishing a data connection between a first communications apparatus and second communications apparatus,
 - determining a value for said protocol identifier in said first communications apparatus and
 - delivering said protocol identifier from the first communications apparatus to the second communications apparatus.

3. The method of claim 1, comprising the steps of

- 20
- establishing a data connection between a first communications apparatus and a second communications apparatus via a third communications apparatus,
 - determining a value for said protocol identifier in said first communications apparatus and
 - delivering said protocol identifier from the first communications apparatus to the
- 25 third communications apparatus.

4. The method of claim 1, comprising the steps of

- establishing a data connection between a first communications apparatus and a second communications apparatus via a third communications apparatus,

- determining a value for said protocol identifier in said third communications apparatus and
- delivering said protocol identifier from the third communications apparatus to the first communications apparatus.

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5. The method of claim 1, comprising the steps of

- establishing a data connection between a first communications apparatus and a second communications apparatus via a third communications apparatus and a fourth communications apparatus,

- 10 - determining a value for said protocol identifier in said third communications apparatus and
- delivering said protocol identifier from the third communications apparatus to the fourth communications apparatus.

- 15 6. The method of claim 1, comprising the step of delivering said protocol identifier over said data connection.

7. The method of claim 1, comprising the step of delivering said protocol identifier over a control connection which is different than said data connection.

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8. The method of claim 1, comprising the step of delivering said protocol identifier in conjunction with the opening of said data connection.

9. The method of claim 1, comprising the step of delivering said protocol
25 identifier at a certain stage after the opening of said data connection.

10. The method of claim 1, comprising the step of repeatedly delivering said protocol identifier at certain intervals.

11. The method of claim 1, comprising the steps of
- determining and delivering said protocol identifier more than once during said data connection,
 - determining said protocol identifier at each time on the basis of a certain part of the first protocol layers, and
 - choosing said part of the first protocol layers such that the chosen part is not identical at all instances of determination.
12. The method of claim 1, comprising the steps of
- adapting said protocol identifier so as to comprise elements and
 - determining each element of said protocol identifier on the basis of a certain part of the first protocol layers.
13. The method of claim 12, comprising the steps of
- adapting said protocol identifier so as to comprise a first element and a second element, and
 - determining said second element so that it defines in more detail a certain part of the first protocol layers generally defined by said first element.
14. The method of claim 1, comprising the step of placing said protocol identifier into a protocol frame of a certain protocol layer together with certain data to be transferred.
15. The method of claim 14, comprising the step of placing said protocol identifier into a field within a protocol frame which field is reserved for the protocol identifier.
16. The method of claim 15, comprising the step of placing said protocol identifier into a field within a protocol frame of a certain logical link control protocol.

17. The method of claim 1, comprising the step of determining a value for said protocol identifier in accordance with the contents of the data transferred over said data connection.

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18. A communications apparatus arranged to transfer information to another communications apparatus in accordance with a protocol stack comprising certain first protocol layers and certain second protocol layers, comprising

- means for creating a protocol identifier,
- 10 - means for determining the value of said protocol identifier in accordance with the first protocol layers of said protocol stack, and
- means for delivering said protocol identifier to the second protocol layers of said protocol stack in either said communications apparatus itself or in said other communications apparatus.

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19. A communications apparatus arranged to transfer information from another communications apparatus in accordance with a protocol stack comprising first and second protocol layers, comprising

- means for receiving at said second protocol layers a protocol identifier the value of
- 20 which is determined in accordance with the first protocol layers of said protocol stack.

20. A data communication system comprising

- a first communications apparatus and second communications apparatus
- 25 - means for transferring information between said first and second communications apparatuses in accordance with a protocol stack comprising certain first protocol layers and certain second protocol layers,
- at least in the first communications apparatus means for creating a protocol identifier,

- at least in the first communications apparatus means for determining the value of said protocol identifier in accordance with the first protocol layers of said protocol stack, and

5 - at least in the first communications apparatus means for delivering said protocol identifier to the second protocol layers of said protocol stack.

21. The data communication system of claim 20, wherein

- the first communications apparatus is a wireless terminal in a radio access network,

10 - said means for transferring information is arranged to deliver said protocol identifier to the second communications apparatus, and

- the second communications apparatus is a network element in said radio access network.

15 22. The data communication system of claim 21, wherein said means for transferring information is arranged to deliver said protocol identifier across a radio interface of a mobile network in a call control connection.

23. The data communication system of claim 20, wherein

20 - the first communications apparatus is a network element in a radio access network,

- said means for transferring information is arranged to deliver said protocol identifier to the second communications apparatus, and

- the second communications apparatus is a wireless terminal in said radio access network.

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24. The data communication system of claim 23, wherein said means for transferring information is arranged to deliver said protocol identifier across a radio interface of a mobile network in a call control connection.